VARENTSOV, M.I.; DITMAR, V.I.

Division of the Tengiz Depression into tectonic regions. Dokl.
AN SSSR 134 no.4:895-898 0 '60. (MIRA 13:9)

1. Institut geologii i razrabotki goryuchikh iskopayemykh Akademii nauk SSSR. 2. Chlen-korrespondent AN SSSR (for Varentsov).

(Tengiz region (Akmolinsk Province) -- Geology, Structural)

DITMAR, V.I.

Salt domes of Bet-Fak-Dala (southern Kazakhstan). Dokl. AN SSSR 140 no.5:1144-1147 0 '61. (MIRA 15:2)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR. Predstavleno akademikom A.L.Yanshinym.
(Bestobe Region--Salt domes)
(Kazangan Region--Salt domes)

DITMAR, V.I.

Characteristics of the geological development of the territory of the Chu and Sary-Su Depression in the Middle and Upper Paleozoic. Doo.28406-409 Ja *63. (MIRA 16:2)

l. Institut geologii i razrabotki goryuchikh iskopayemykh. Predstavleno akademikom D.I. Shcherbakovym. (Chu Valley-Geology) (Sary-Su Valley-Geology)

DITMAR, V.I.

Prospects for finding oil and gas in the Chu-Sarysu Depression in (southern Kazakhstan.) Neftegaz. geol. o geofiz. no.8:3-4 '63. (MIRA 17:3)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.

VARENTSOV, M.I.; DITMAR, V.I.; SHMAKOVA, Ye.I.

Sary-Su salt domes. Dokl. AN SSSR 151 no.2:396-398 J1 '63. (MIRA 16:7)

- 1. Institut geologii i razrabotki goryuchikh iskopayemykh.
- 2. Chlen-korrespondent AN SSSR (for Varentsov).
 (Sary-Su Valley-Salt domes)

VARENTSOV, M. I.; DITMAR, V. I.; DOROSHKO, S. M.; KURENKOV, N. T.; LEVENKO, A. I. RYABUKHIN, G. Ye.

"Tectonics of oil- and gas bearing depressions in Middle and Central Asia and in adjacent regions of Siberia and the Far East."

report submitted for 22nd Sess, Intl Geological Cong, New Delhi, 14-22 Dec 1964.

KRYLOV, N. A.; DITMAR, V. I.; LETAVIN, A. I.

Characteristics of the transitional complexes of the Caledonian and Hercynian consolidation. Izv AN SSSR Ser geol 29 no. 5:9-16 My 164. (MIRA 17:5)

1. Institut geologii i razrabotki goryuchikh iskopayenykh, Moskva.

DIRMAR, V.I.; TIKHOMIROV, V.I.

Permian halogen sediments in the southwestern part of central Kazakhstan. Dokl. AN SSSR 158 no.5:1089-1092 0 64. (MIRA 17:13)

1. Institut geologii i razrabotki goryuchikh iskopayemykh. Fredstavleno akademikom N.M.Strakhovym.

DITMAR, V.I.; LI, A.B.; FILIPINEV, G.P.

Concerning the gas potential of the middle Upper-Paleozoic sediments of southern Kazakhstan, Neftegaz.geol. i geofiz. no.12:8-10 *64.

(MIRA 18:3)

l. Yuzhno-Kazakhstanskuya nefterazvedochnaya ekspeditsiya i Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.

VARENTSOV, M.I.; DITMAR, V.I.; LI, A.B., SHMAKOVA, Ye.I.

Age of rock salt in the diapir structures of the Chu-Sarysu Depression. Dokl. AN SSSR 159 no.2:327-329 N '64.

(MIRA 17:12)

1. Institut geologii i razrabotki goryuchikh iskopayemykh.

2. Chlen-korrespondent AN SSSR (for Varentsov).

AVROV, P.Ya.; DITMAR, V.I.; FILIP'YEV, G.P.; SHALABAYEV, S.A.; LI, A.B.; SHAKHOV, R.A.; MAYLIBAYEV, M.M.; TSIREL'SON, B.S.

Gas bearing capacity of the Usharal structure in the Chu Depression. Vest. AN Kazakh. SSR 21 no.1:69-73 Ja 165. (MIRA 18:7)

DITMAR, V.I., TIKHOMIROV, V.I.

Middle Paleozoic red-bed halogen sediments in the southwestern part of central Kazakhstan. Dokl. AN SSSR 164 no.2:418-421 S '65.

1. Institut geologii i razrabotki goryuchikh iskopayemykh, Moskva. Submitted May 26, 1965.

VARENTSOV, M.I.; DITMAR, V.I.; LI, A.B.; MAYLIBAYEV, M.M.; FILIP'YEV, G.P.

Structure of the central part of the Chu-Sarysu Depression. Dokl. AN SSSR 166 no.3:671-673 Ja 166.

(MIRA 19:1)

1. Institut geologii i razrabotki goryuchikh iskopayemykh;
Institut geologicheskikh nauk im. K.I.Satpayeva AN KazSSR
i Yuzhno-Kazakhstanskaya nefterazvedochnaya ekspeditsiya.

2. Chlen-korrespondent AN SSSR (for Varentsov). Submitted
October 21, 1965.

ACC NRI AP7004547

SOURCE CODE: UR/0011/66/000/006/0055/0062

AUTHOR: Varentsov, M. I.; Ditmar, V. I.; Li, A. B.

i jiri da Garanjan Sama

ORG: [Varentsov; Ditmar; Li] Institute of Geology and Exploitation of Fuel Minerals, Moscow (Institut geologii i razrabotki goryuchikh iskopayemykh); [Ditmar; Li] Institute of Geological Sciences AN KazSSR im. Satpayev, Alma-Ata (Institut geologicheskikh nauk AN KazSSR)

TITIE: Principal features of the tectonics and comparative description of the petroleum and gas depressions of Kazakhstan and adjacent regions of middle and central Asia

SCURCE: AN SSSR. Izvestiya. Seriya geologicheskaya. no. 6, 1966, 55-62

TOPIC TAGS: tectonics, earth gravity / Kazakhstan

ABSTRACT: This article briefly describes the characteristics of the structure of the Iliyskaya, Chu-Sarysuyskaya and Kyzylkumskaya depressions, situated in southern and southeastern Kazakhstan, and compares them with the Dzhungarskaya and Tsaydamskaya depressions, situated in the adjacent regions of northewestern China, for the purpose of evaluating their potroleum and gas potentialities. An important aspect of the article is a classification of basins which has been introduced (the area described is shown on a map where this classification is employed). Two main groups of basins are described within folded or platform structures on the basis of such characteristics as: principal stages of development, Card 1/2

UDC: 553.982(575.0+574.5)

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counding them and	n of the basement and the mountain structures sur- the age, composition and tectonic characteristics of ng them. For example, the first group of basins is
ituated within f orked by neotect econd group is s	lded or orogenic regions of different ages, later re- nic movements, in places with a platform cover. The tuated within activated platforms. Depressions of the
irst group have igh-mountain fol	he following characteristics: They are framed by ed structures. The depressions are filled with Hosoz- arily continental deposits, considerably more dislo-
ated along their hev constitute 1	margins than in their central parts. Tectonically rge meganticlinoria. Beginning of formation was
ssociated With T	e final stages of geosynclinal development of the
egion. Sharp ch ters occur in th	nges of gravity values and other geophysical param- central and marginal parts. A similar list of
egion. Sharp ch ters occur in th	nges of gravity values and other geophysical param- central and marginal parts. A similar list of given for basins of the second type. [JPRS: 38,460]
egion. Sharp ch ters occur in th haracteristics i	central and marginal parts. A similar list of
egion. Sharp ch ters occur in th haracteristics i	given for basins of the second type. [JPRS: 38,460]

15(10) AUTHOR:

Ditrich, Bogdan, Doctor

YUG/3-58-12-5/27

TITLE:

Protection of Juniper and Fir Poles (Zaštita smrekovih i

jelovih stubova)

PERIODICAL:

Elektroprivreda, 1958, Nr 12, pp 599-603

RIODICAL: Elektroprivreda, 1930, Mr 12, pp 399-003

ABSTRACT: T

The author considers the present methods of impregnating juniper and fir poles, used for transmission lines, with creosote as unsatisfactory, because of the slight penetration of this coal tar oil into these types of woods. The author considers the use of agents soluble in water, such as pentachloro phenol as well as the use of contemporary methods, such as Wohlmanizing, more advantageous. For impregnating seasoned juniper and fir poles the author proposes Wohlmanizing in vats under high vacuum and pressure; the installations for such a treatment would be profitable only by impregnating more than 3,000 cu m of these poles yearly. Further proposals of the author: to stop impregnating juniper and fir poles with creosote; to start immediately impregnating by "osmosis" method; it is also necessary to start soon impregnating in vats, under high vacuum and pressure as well as to set up several

Card 1/2

Protection of Juniper and Fir Poles

YUG/3-58-12-5/27

installations in Yugoslavia for impregnating by the "Boucherie" method. A brief description of all these methods is given in the article. There are 5 photos and 7 references, 1 of which is Yugoslavian and 6 German.

ASSOCIATION: Fakulteta za agronomijo, gozdarstvo in veterinarstvo (Department for Agronomy, Forestry and Veterinary Medicine), Ljubljana University.

Card 2/2

DITRICH, Tadousz

The national tudget and the development of the national economy and culture in People's Foland. Fin. SSSR 16 no.6:47-56 Je '55 (MIRA 8:6)

1. Ministr finansov Pol'skoy Narodnoy Respubliki.
(Poland--Budget) (Poland--Social conditions)

DITRIKH, Tadeush [Ditrich, Tadeusz]

Fifteen years of economic growth in People's Poland. Vop. ekon. no.7: 110-122 J1 '59. (MIRA 12:11)

1. Ministr finansov Pol'skoy Marodnoy Respubliki.
(Poland--Mconomic conditions)

CZECHOSLOVAKIA

JAHOS, O.; <u>DITTRICHOVA</u>, J.; KOCH, J.; PAPOUSEK, H.; TAUTERMANNOVA, M.; MELICHAR, V.; Institute for the Care of Mother and Child, Prague. Orig. version not given 7.

"Early Development of Higher Nervous Activity in Premature Infants with Respiratory Distress Syndrome."

Prague, Activitas Nervosa Superior, Vol 8, No 2, Jun 66, p 201

Abstract: 8 premature infants (average weight 1513 grams) who developed a late asphyctic syndrome and 9 infants (average weight 1582 grams) with a permanently good condition were studied for 6 months. Somatic development, health, and clinical manifestations in both groups were the same. There was no difference in the rate of reflex elaboration and differentiation, in synchronized sleep or any other aspects that were investigated. 1 Table, no references. Submitted at the 4th Conf. for Exper. and Clin. Study of Higher Nerv. Functions at Mar. Lazne, 12-15 Oct 65.

1/1

CZECHOSLOVAKIA

<u>DITTRICHOVA</u>, J.: PAUL, K.; Institute for the Care of Mother and Child, Prague. /Orig. version not given 7.

"The Course of Night Sleep in Infants."

Prague, Activitas Nervosa Superior, Vol 8, No 2, Jun 66, pp 202-203

Abstract: 7 healthy children were studied from the 2nd to their 24th weeks of life. Study lasted from 4.30 pm until 5.30 am, with EEG investigations in the afternoon. The number of sleep periods did not change with age, but their length increased with increasing age. The ability to sustain quiet sleep for longer periods seems to be one of the characteristics of development of the infant sleep. 3 Western references. Submitted at the 4th Conf. of Exper. and Clin. Study of Higher Nerv. Functions at Mar. Lazne, 12-15 Oct 65. Article is in English.

1/1

JUZNIC, M.; RIBERNISAK, V.; DITRIH, Z.

Circulatory arrest in deep hypothermia with extracorporeal cooling and autogenous exygenation. Acta chir. Iugosl. 10 no.2:112-124 163.

1. Hirurska klinika Vojno-medicinske akademije u Beogradu (Nacelnik gen. prof. dr I. Papo).

(HEART, MECHANICAL)

(HEART ARREST, INDUCED)

(HYPOTHERMIA, INDUCED)

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DITRICH, K.F.

PHASE I

TREASURE ISLAND BIBLICGRAPHIC REPORT

Call No.: AF574255 AID 132 - I

BOOK

Authors: BAYRASHEVSKIY, A.M., Eng. Capt. of the Navy, ALEKSANDROVSKIY, V.V.,

ASHCHEULOV, V.P., GEORGIONOV, K.V., DITRIVH, K.F., SELENINOV, B.V.,

AND SHTUKIN, L.V.

Full Title: TEXTBOOK FOR SHIP'S RADIO OPERATOR (2nd Edition)

Transliterated Title: Uchebnoe psosbiye dlya sudorogo radio-operatora

Publishing Data

Originating Agency: Main Administration of Educational Institutions of the

Ministry of the Merchant Marine

Publishing House:

Publishing House "Morskoy Transport"

Date: 1952

No. pp.: 660

No. of copies: 6.000

Editorial Staff

Editor: Sandler, N.V.

Tech. Ed.: Flaun, M.Ya.

Appraiser: None.

Editor-in-Chief: Bayrashavskiy, M.A. Text Date

Coverage?

The textbook presents a general introduction to various phases of radio science from basic electromagnetic principles and description of early types of spark and vacuum tube radio-apparatus to recent types of receiving and sending radio installations, direction finders, electro-acoustical, amplifying and recording equipment. The final part of the book is related to general ship regulations for radio signal exchanges, minor repairs and adjustment of the radio apparatus and ship radio

DITRIKH, K.F.

Uchebnoe posobiye dlya sudorogo radio-operatora

AID 132 - I

installation. The last chapter of this part gives general information on navigation, astronomy, meterology and ship construction.

Comments: The book supplies only general and elementary information for the

ship's radio operator and does not deal with radar and other modern

equipments.

Purpose: The textbook is approved by the Main Administration on Educational

Institutions of the Ministry of the Merchant Marine for radio-

operators, particularly for self-study.

Facilities: The book is the collective work of teachers of the Leningrad Marine

College and of the special courses for the commanding staff of the

Merchant Marine.

No. of Russian and Slavic References: 32 Available: A.I.D., Library of Congress.

2/2

6(4)

PHASE I BOOK EXPLOITATION

SOV/1577

Ditrikh. Konstantin Feliksovich

Radiopriyemnyye ustroystva (Radio Receiving Systems) Leningrad, Izd-vo "Morskoy transport," 1958. 395 p. 12,000 copies printed.

Special Ed.: N.A. Suslov; Ed. of Publishing House: N.V. Sandler; Tech. Ed.: O.I. Kotlyakova.

PURPOSE: This book was approved by the Ministry of the Merchant Marine, USER, for maritime schools as a textbook in radio engineering. It may also be used as a practical aid by ship radio-operators.

COVERAGE: The book covers the course in radio receivers given by the radio engineering departments of maritime schools. Emphasis is centered on problems having practical value for ship radio-operators. The author explains the theoretical principles of radio reception of long, medium and short waves. He describes receiver circuits and their components and the physical processes occurring in them. He also discusses the basic principles of designing modern radio receiving equipment and concludes with recommendations on the construction and operation of receivers used aboard ships. The author thanks Doment,

Card 1/9

Radio Receiving Systems

SOV/1577

Candidate of Technical Sciences K.A. Semenov, Engineer V.A. Pisarev, lecturer at the Leningrad Maritime School, and Docent, Candidate of Technical Sciences N.A. Suslov, all of whom reviewed the book in manuscript form and offered many valuable suggestions. There are 10 references, of which 9 are Soviet and 1 English.

TABLE OF CONTENTS:

oreword	
Ch. I. General Information on Radio Receiving Systems 1. Historical survey of the development of radio reception 2. Radio receiving system and its function	
3. Requirements of radio receivers and their basic characteristics 4. Block diagrams of radio receivers. Functions of components	16
Ch. II. Tuned Circuits in Radio Receivers 5. The resonant circuit and its parameters 6. Band filters	20 :20 :25
Card 2/9	

SOV/142-58-5-9/23

9(3)

AUTHOR:

Ditrikh, K.F.

TITLE:

Simplified Calculation of a Pulse

Cathode Detector

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy - radiotekhnika, 1958, Nr 5,

pp 579-583 (USSR)

ABSTRACT:

The author analyzes a cathode detector of pulse signals by neglecting the spacing current. Asimplified calculation of a detector is given. The description is limited to the cases, in which sufficiently strong signals are detected. Strong signals means signals, whose voltage amplitudes are not less than 3 V at the input of the detector. The switching of a cathode detector is given (Fig.1), and the equivalent switching to a cathode detector in Fig. 2. The article is recommended by the Kafedra radiopriyemnykh ustroystv Leningradskogo instituta aviatsionnogo priborostroyeniya (Chair of Radio Receiving Devices at the Leningrad Institute for Aviation Instruments). There are 2 diagrams, 2 graphs, 12 equations

Card 1/1

and 1 Soviet reference.

SUBMITTED:

January 9, 1958 (initially), April 12, 1958 (after revision)

9(2) AUTHOR:

Ditrikh, K.F.

SOV/142-58-6-3/20

TITLE:

The Influence of the Output Circuit of a Discriminator on Its Operation Under Pulsed Conditions (Vliyaniye skhemy vykhoda razlichitelya na yego rabotu v

impul'snom rezhime)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy - Radiotekh-

nika, 1958, Nr 6, pp 653-658 (USSR)

ABSTRACT:

The article deals with effects of the output circuit of the frequency discriminator in an AFC circuit, operating under pulsed conditions, on the normal operation of the AFC. The circuit of an unbalanced discriminator is illustrated (Figure 1) and its operation, when pulse fed, is analyzed by the author, who shows that the pulses at the output are distorted (Figure 2). A balanced discriminator circuit (Figure 3), he states, is free of such distortion, but the output is two times less. In ad-

Card 1/3

dition, the detectors in the unbalanced discrimina-

SOV/142-58-6-3/20

The Influence of the Output Circuit of a Discriminator on Its Operation Under Pulsed Conditions

tor circuit shown may have unequal time constants, which leads to what the author calls video-asymmetry, disturbing the normal correlation of the detector output voltage. At the frequency to which the discriminator is tuned it also leads to the appearance of a voltage at the output. With pulses of long duration at the transition frequency, voltage surges of changing polarity are apparent (Figure 4). The above has been fully demonstrated experimentally. Output voltage forms of a discriminator with video-asymmetry are shown (Figure 5). The trouble is traced to the coupling capacitor between the discriminator and the previous stage. In the unbalanced circuit, video-asymmetry can be eliminated by the choice of capacitors of unequal value used to shunt the load resistors of the detectors, which also results in increased settling time of the output voltage. High frequency asymmetry can be the couple of the output voltage.

Card 2/3

SOV/142-58-6-3/20

The Influence of the Output Circuit of a Discriminator on Its Operation Under Pulsed Conditions

metry and related initial surges in this circuit cannot be eliminated. The author analyzes output voltage behaviour during the pulse cycle, under specific circuit conditions. This article was recommended by the vafedra radiopriyëmnykh ustroystv Leningradskogo instituta aviatsionnogo priborostroyeniya Chair of Radio Receiving Equipment of the Leningrad Institute of Aviation Instrument Manufacturing). There are 2 circuit diagrams and 3 diagrams.

SUBMITTED:

January 9, 1958 (initially) April 12, 1958 (after revision)

Card 3/3
USTROYSTY, Veningral Skugo Instituta aviatsionnogo
Pribosos Trovania.

SEMENOV, Konstantin Aleksandrovich; DITRIKH, K.F., kand.tekhn.nauk, retsenzent; FERSMAN, A.A., dotsent, kand.tekhn.nauk, red.; FRISHMAN, Z.S., red.izd-va; DROZHZHINA, L.P., tekhn.red.

[Radio receivers and low-frequency amplifiers] Radiopriemnye ustroistva i usiliteli nizkoi chastoty. Leningrad, Fzd-vo "Morskoi transport," 1960, 518 p. (MIRA 13:9) (Radio--Receivers and reception) (Amplifiers (Electronics))

KRYLOV, Nikolay Nikolayevich, prof., doktor tekhm. nauk; DITRIKH, K.F., spets. red.; SANDLER, N.V., red. izd-va; DROZHZHINA, L.P., tekhn. red.

[Theoretical fundamentals of radio engineering] Teoreticheskie osnovy radictekhniki. Leningrad, Izd-vo "Morskoi transport," 1961.
416 p. (MIRA 14:8)

AYZINOV, Mark Moiseyevich; BAYRASHEVSKIY, Aleksandr Mustafovich; POLOZHINTSEV, Veziliy Alekseyevich; DITRIKH, K.F., red.; GORYANSKIY, Yu.V., red.izd-va; KOTLYAKOVA, O.I., tekhn.red.

[Radio engineering and radio navigation devices]Radiotekhnika i radionavigatsionnye pribory. Leningrad, Izd-vo "Morskoi transport," 1962. 474 p. (MIRA 16:3) (Radio in navigation) (Radio) (Radar)

DITRIKH, K.F.; DOBRINSKAYA, R.V., red.

[Tuned amplifiers; lectures] Rezonansnye usiliteli; lektsii. Leningrad, Leningr. in-t aviatsionnogo priborostroeniia, 1963. 75 p. (MIRA 17:7)

DITRIKH, Konstantin Feliksovich

[Radic-receiving systems] Radiopriemrye ustroistva. Izd.2., perer. i dop. Moskva, Transport, 1964. 442 p. (MIRA 17:9)

ALLIKMETS, L.Kh.; DITTER, N.Ye.

Effect of disorders in the limbic system on emotional reactions and conditioned response in rats. Thur. vys. narv. delat. 15 no.1: 86-95 Ja-F 165. (Mich 18:5)

l. TSentral'naya meditsinskaya nauchno-issledovatel'skaya laboratoriya Tartuskogo gosudarstvennogo universiteta.

KARPIS, Ye.Ye., kandidat tekhnicheskikh nauk; DITRIKH, K.M. Design, installation and operation of AOP (overhead heating unit) heating units. Rats. i lzobr.predl. v stroi. no.122:9-15 \$55.
(Hot-air heating) (MIRA 9:7)

(Hot-air heating)

RYSIN, S.A., kandidat tekhnicheskikh nauk; DITRIKH, K.M., inzhener, redaktor; GLINKR, B.M., inzhener, redaktor izdatel stva; TIKHONOV, A.Ya., tekhnicheskiy redaktor

[Equipment for ventilation of machine building plants; a handbook]
Ventiliatsionnye ustanovki mashinostroitel'nykh zavodov; spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry,
1956. 575 p.

(MLRA 9:10)
(Factories--Heating and ventilation)

RYSIN, Serafim Alekseyevich, kand.tekhn.nauk [deceased]; KAMENEV, P.N., doktor tekhn.nauk, prof., retsenzent; <u>DITRIKH, K.M.</u>, inzh., red.; RYBAKOVA, V.I., inzh., red.izd-va; EL'KIND, V.D., tekhn.red.

[Ventilating installations in machine-building plants; handbook]
Ventiliatsionnye ustanovki mashinostroitel'nykh zavodov; spravochnik. Izd.2., perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry, 1960. 704 p. (MIRA 14:6)
(factories—Heating and ventilation)

DITRIKH, N., planeristka

First glider pilots in Kaluga. Kryl. rod. 14 no.11:15 N '63. (MIRA 16:11)

1. Chlen uchenogo soveta Doma-muzeya K.E. TSiolkovskoge.

VINOKUROV, A.; IVOLGIN, A.; KUZ'MIN, N.; DITRIKH, N. (Kaluga)

Facts, events, people. Kryl. rod. 15 no.8:20-21 Ag '64.

(MIRA 18:1)

DITRIKH. V.V., inzh., red.; PEVENER, A.S., red. izd-va,; EL'KIWA, E.M., tekhn. red.; BCROVNEV, H.K., tekhn. red.

[Manual of consolidated indices of the cost of planning and research. Effective January 1, 1958] Spravochnik ukrupmennykh pokazatelei stoimosti proektnykh i isyskatel'skikh rabot. Vvoditsia v deistvie s l ianvaria 1958 g. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam. Pt. 17. [Enterprises of the woodpulp, paper, and hydrolysis industries] Predoritatiia tselliulozno-bumazhnoi i gidroliznoi promyshlennosti. Izd. 2. 1958.87 p. (MIRA 11:12)

1. Russia(1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.

(Woodpulp industry)
(Paper industry)
(Hydrolysis)

DITRIKH, Yu.V., inshener; SMORODINGV, M.I., inzhener.

Automatic caisson sinking. Gidr.stroi.25 no.8:14-17 S 56.
(Caissons) (NIRA 9:10)

BARKAN, D.D.; TIKUNOV, P.R.; SHEEHTER, O.Ya.; PREOBRAZHENSKAYA, N.A.; SAVINOV, O.A.; LUSKIN, A.Ya.; GREBEHNIK, A.A.; MERZLYAK, TS.H.; ALEKSANDROV, M.A.; TSAPLIN, S.A.; PAVLOVA, A.B.; DITRIKH, Yu.V.; KHAVIN, B.N., red.izd-va; TERKINA, Ye.L., tekhn. red.

[Instructions for driving and extracting steel pile planks using SN 59-59 vibrators] Instruktsiia po pogruzheniiu i izvlecheniiu stal'nogo shpunta vibropogruzhateliami SN 59-59. Moskva, Gos. izd-vo liz-ry po stroit., arkhit. i stroit.materialam, 1959.

46 p. (MIRA 13:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Nauchnc-issledovatel'skiy institut osnovaniy i podzemnykh soorusheniy Akademii stroitel'stva i arkhitektury SSSR (for Barkan, Tikunov, Shekhter, Preobrazhenskaya). 3. Vse-soyuznyy nauchno-issledovatel'skiy institut gidrotekhnicheskikh i sanitarno-tekhnicheskikh rabot (VNIIGS) (for Savincv, Luskin). 4. Fundamentproyekt (for Grebennik, Merslyak). 5. Vsesoyuzhnyy nauchno-issledovatel'skiy institut straitel'nogo i dorozhnogo mashinostroyeniya (VNIIStroydormash) (for TSaplin). 6. Gidropro-yekt (for Pavlova). 7. Gidrospetsfundamentstroy (for Ditrikh). (Vibrators) (Piling (Givil engineering))

PROTEGA, Aleksandar, sanitetski potpukovnik dr.; KRALJEVIC, Ljubomir, sanitetski pukovnik docent dr.; DITRIH, Zvonimir, sanitetski kapetan dr.; SOKOLIC, Josip, sanitetski kapetan dr.; JAKOBUSIC, Augustir, dr.; RAJCIC, Aleksandar, sanitetski kapetan mr.ph.

Local cooling of the kidney in surgical practice. Experimental studies. Vojnosanit. pregl. 22 nc.12:758-760 D 165.

1. Bolnica armijske oblasti u Splitu; Kirursko odjeljenje, Prosektura; Klinicki laboratorij.

KARADY, I., SKULTETT, S., DITRO, I. G.

Experimental data on the mechanism of Filatov's method of tissue therapy. Szemeszet No. 1, 1950. p. 5-9

1. Of the Ophthalmological Clinic (Director—Dr. Gabor Ditroi) and of the Pharmacological Institute (Director—Dr. Hiklos Jancso), Szeged University.

CLUL 19, 5, Nov., 1950

DITROI, K.

Herend porcelains in the Deri Museum. p. 145.

EVKONYVE. Deri Museum. Debrecen, Hungary. 1957 (published loca).

Monthly List of East European Accessions (EFAI) IC, V cl. 2, no. 11. November 1959.

Uncl.

SANDERS DITHOLOGIC DITROL, Sunder

IVAN, Halasz, dr. :SANDOR Litroi, dr. :BELA, Magyarosi, dr. mnegyetemi tanarsaeged munkaja (Előzetes közlemeny).

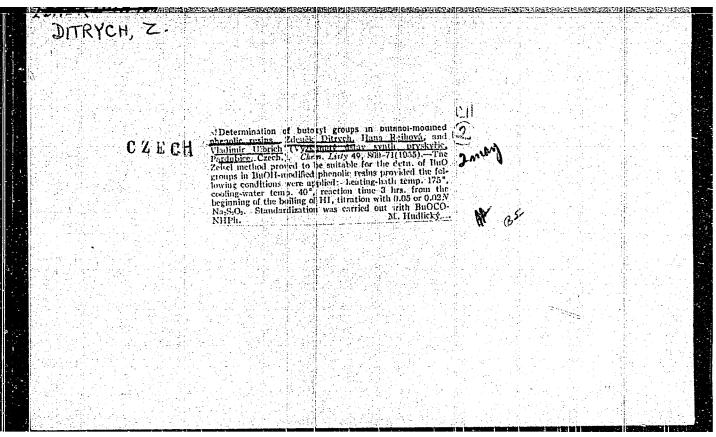
Bronchostereography. Orv. hetil. 98 no.17:437 28 Apr 1957.

l. A Miskoici Varosi Korhaz RZontgen Osztaly (vezeto: Halasz Ivan dr.)
Orr-, ful-, gegeszeti Osztaly (vezeto: Czier Bela dr.) es a Budapesti
Muszaki Egyetem Hadmernoki Kar Optikai Tanszekenek (vezeto: Dekany
Sandor dr. a muszaki tudomanyok doktora) kozlemenye.

(BRONCHI, radiography
bronchostereography (Hun))

DITROI, Zoltan (Gyor)

It depends much on the method of information. Munks 14 no.9:10 S '64.



DITRYCH, Z.

Use of plastic materials in building industries abroad. p.150 (Fozemni Stavby, Vol.5, no.3, Mar. 1957) Praha

SO: Monthly List of East European Accession (EEAL) LC, Vol.6, no.7, July 1957. Uncl.

: CZECHOSLOVAKIA CATEGORY: Chemical Tecnology. Chemical Products and their Applications. Synthetic Polymers.*

ABS. JOUR.: AZKhim., No. 19, 1959, No. 69691 : Ditrych, %. $M^{\prime\prime\prime}$ 1 7 : Polycarbonetes TITLE ORIG. PUB. : Nove techn., 1958, No 4, 184-185 : Polycarbonates (I) are synthesized from 4,42-dioxydiphenylalkanes (II) employing two ABSTRACT methods: a) without solvents by the action of carbonic acid diesters (diphenylcarbonate, dicresylcarbonate and dinaphthylcarbonate) on II at 150-300° (a polymer of I with molecular weight of 50,000); b) in the presence of a solvent (CH₂Cl₂ for example) and of NaCH by the reaction of II with COCl₂ at 20-30° (polymers of I with molecular weight up to 150,000) *Plastics 1/2 CaRD:

CA

Ditrych, Z.

CZECHOSLOVAKIA / Chemical Technology. Chemical Prod- H ucts and Their Application. Synthetic Polymers. Plastics.

Abs Jour: Ref Zhur-Khimiya, No 9, 1959, 33307.

Author : Ditrych, Z.
Inst : Not given.
Title : Furan Resins.

Orig Pub: Nova techn., 1958, No 7, 332-335.

Abstract: There are described the structure, synthesis and physicochemical properties of phenolfurfural, furfural and furfural ketone resins and the resins based on furyl alcohol. The resins' resistance to heat and chemical stability are noted particularly. Methods for reprocessing in the fields of application of the furan resins (glues, pastes, laminated plastics, tubes, reservoirs, etc.) are

submitted. -- L. Sedov.

Card 1/1

ZD. DITRYCH : CZECHOSLOVAKIA. : Chemical Technology. Chemical Produces and Category Their Applications. Synthetic Polymers.: Ref. Zhur. - Knim., No. 10, Plast 1959. 36950. Aba. Jour : Ditrych Zd. : Not given. Author Institut. : Automobile Hoods from Laminated Flastics. Title : Svet techn., 1958, 0, No. 7, 406-405. Orig Pub. : The production of boods for light-weight ruto-Abstract mobiles from glass plastice on the onsis of unsaturated polyester resins (HTR) is doscribed. The glass tibers, freed first of all from the lubricent (devaloped by a chromium complex of metacryl soid, chrome organic compounds, etc.), are stecked (by the method of contact formation) in wooden or gypsum molds, covered with separating laminae; UTR is inpregnated with the mid of a prush. The mereration is hardened at about 200 without pressure. This method is useful for the Card: 1/2 11-159

Country Ganordry Aba. Jour : Author . Institut. : Title Orig Pub. : Abstract : production of email orders. For large-order production of hoods, the previously preceded priorisl is extruded at raised temperatures, thanks to which the hardening process is socelerated. In this matica, metalice section-al molds, consisting of 3-5 parts, are used. The extrusion of the metallic fittings into memarate places of the hood makes it possible to join the latter to the chassis by electric welding. In case digmented resinc and rollshed moids are used, the necessity for lacquering the bood's surface is eliminated .-- L. Secov Card: 2/2

GZECHOSLOVAKIA/Chemical Technology. Chemical Freducts. Safety and Sanibation

Abs Jour : Ref Zhur - Khimiya, 1958, No 22, 74477

Tot Given Vy EKUMNY USTAV SYNTHETICKYLA PRYSKY RIC ALOCO PREDUBILES. **Author**

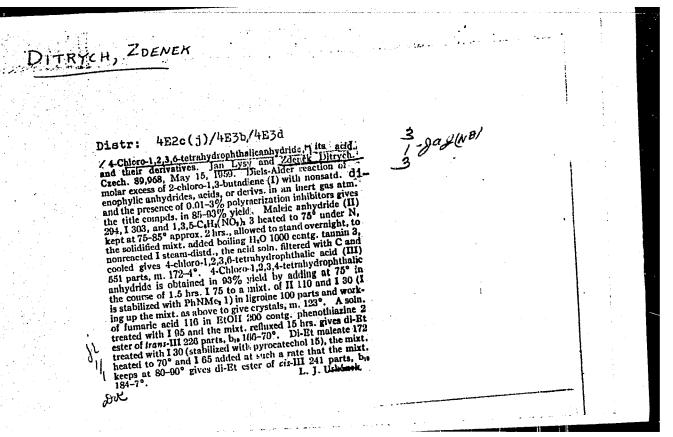
 I_{nst} : Toxicity of Fleatics, Rubber and Dyes Title

Orig Fub : Fracovni lokar., 1958, 10, No 1, 61-69

Abstract: Toxic properties of the polycondensates (phonolic, amino, and furan type resins, polyesters, polyemides, silicones, and cyclohoxeno, titenium, and aluminum rosins), pelyethylencoxide, polyothylenomine, polyurotanes, and of other resins end of natural and synthetic rubber, of the derivatives of colluloso, of cetelysts, sorbents, fillors, pigments, Softoning egents and of dyes, ere briefly reviewed. Alloweble concontrations of vapors, dust and smoke for the 94 substances covered are presented showing the edepted stendards in Ozochoslovakic, USSR, and USA. Bibliography covers 50 names.

: 1/1 Cord

14



L 12309-63 EWP(j)/BDS /SI/AFFTC Pc-4 RM S/081/63/000/005/ 066/075

AUTHOR: Lysy, J. and Ditrych, 2.

TITIE: A method for production of polyester resins

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 607, abstract 5T19UP,

(Czech. Patent 98429, 15 - 06 - 61)

TEXT: To obtain polyester and alkyd resins, 4-cilor-1,2,3,6-tetrahydroxy-phthalic acid (I) and its derivatives are utilized. These compounds differ from phthalic acids by virtue of their tendency to sublime, their greater heat resistance and better solubility in reactive mixtures, which insures derivation of products, which in turn combine with resins, polymers and halogen derivatives. Example: 2 moles of linserical (IM) are heated for one hour with 1,1 mole of glycerin at 250° C in the presence of 0.05% of PbO. The mixture is cooled to 180° C, and to it is added 1.25 moles of I, 0.25 moles of maleic anhydride and 0.2 moles of toluene. The esterification is conducted at 220° C with azeotopic distillation of water until a product is obtained with an acid number < 10. The derived alkyd resin (AC) dries rapidly in the presence of driers (Co and Pb naphthenates in the amount of 0.03% Co and 0.3% Pb by weight

Card 1/2

L 12309-63 A method for production of

s/081/63/000/005/066/075

of AC) forming a hard coating. When half of IM is substituted by tung oil the obtained coatings are more stable in water and possess insecticidal and fungicidal properties. To the derived AC 20 - 30 % of chlorinated rubber may be added. Stabilized emulsions are obtained by emulsified-hydrogenation of 70 % solution of AC (in butanol) in warm water containing 5 % casein, 0.5 % ammonium hydroxide and 0.5 % sulfonated castor cil. T. Zvarova.

[Abstractor's note: Complete translation]

Card 2/2

DITSENT, L.Ye.

Calculating the yield of channel black from the composition of crude gas. Gaz. prom. 4 no.12:44-47 D '59.

(MIRA 13:3)

Study of the channel carbon-black process. Trudy VNIIGAZ no.12:
164-186 '61. (Carbon black)

AUTHOR:

Ditsent, V. Ye.

SOV/32-24-8-13/43

TITLE:

The Polarographic Analysis of Anthraquinone Mixtures (Polyaro-

graficheskiy analiz smesi antrakhinonov)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 8,

pp. 951 - 952 (USSR)

ABSTRACT:

In the catalytic hydrogenation of 2-ethylanthraquinone with the production of hydrogen peroxide by the quinone method tetra- and octahydro-2-ethylanthraquinones form. The polarographic method was used to analyse this mixture. Using a mixture of these anthraquinones in 80% methanol and a background of lithium chloride a polarogram with three clearly-defined waves was obtained. A direct proportionality was observed between the height of the waves and the concentration of each compound present in solution. The diagram was obtained with an M-8 polarograph which registered photographically. The

electrolytic cell used was hermetically sealed and was equipped with a jacket to regulate temperature. The observations mentioned here were tested industrially and found to be correct. The analytical procedure is given. There are

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The Polarographic Analysis of Anthraquinone Mixtures SOV/32-24-8-13/43

2 figures, 1 table, and 1 reference which is Soviet.

Card 2/2

5 (3)

AUTHOR:

Ditsent, V. Ye.

SOV/79-29-4-70/17

TITLE:

Polarographic Investigation of the Anthraquinone Compounds and Their Tetra- and Octahydro Derivatives. (Polyarograficheskoye issledovaniye antrakhinonovykh soyedineniy i ikh tetra- i oktagidroproizvodnykh)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1370 - 1374 (USSR)

ABSTRACT:

Several papers among the publications deal with the polarographic investigation of 9,10-anthraquinone and its sulfo- and oxy derivatives (Refs 1-15). Data on the polarographic investigation of the alkylanthraquinones and their tetra- and octahydro derivatives are not described in publications. The results of the polarographic investigation of some compounds of the anthraquinone series and of their tetra- and octahydro derivatives are given in the present paper. The reduction at the mercury drop electrode was tested on 12 compounds. It was shown that the introduction of the substituents CH3, C2H5 and C3H7 into the molecule of the anthraquinone and its hydro derivatives

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does not influence the half wave potential. The hydrogenation

Polarographic Investigation of the Anthraquinone SOV/79-29-4-70/77 Compounds and Their Tetra- and Octahydro Derivatives

of the lateral rings of anthraquinone compounds leads to the shift of the half wave potentials towards the direction of the positive quantities, in the case of tetrahydro derivatives to 0,12 - 0,15 v, and in the case of octahydro derivatives to 0,20 - 0,23 v. It was found that the reduction mechanism of the investigated compounds depends on the percentage of the solution: at pH 4 the reduction proceeds in one stage, at pH 4 in two stages, under formation of the semiquinone in the first reduction stage.

6.

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Polarographic Investigation of the Anthraquinone SOV/79-29-4-70/77 Compounds and Their Tetra- and Octahydro Derivatives

A photorecording polarograph of the construction "Giredmet", model Nr 8 was used for the polarographic investigation. There are 4 figures, 2 tables, and 13 references, 7 of which are Soviet.

SUBMITTED: January 28, 1958

Card 3/3

5.3400

80093 8/020/60/131/06/37/071 B011/B005

AUTHORS:

Freydlin, L. Kh., Litvin, Ye. F., Ditsent, V. Ye.

TITLE:

Investigation of the Influence of Composition of Mixed Solvents on the Rate and Selectivity of the Process of Hydrogenation of

2-Ethylanthraquinone 1

Doklady Akademii nauk SSSR, 1960, Vol. 131, No. 6, pp. 1362 - 1365

TEXT: The authors found that the rate and selectivity of the process mentioned in the title are essentially influenced by the composition of the mixed solvent. Hydrogenation of the 2-ethylanthraquinone ring is favored by dioxane. At 200 and normal pressure, one of its two aromatic rings hydrogenates in the dioxane medium. The authors could not find an octahydro derivative. The formation of the tetrahydro derivative starts immediately at the beginning of the process. By addition of a polar component to dioxane, the reduction of quinone groups is accelerated, whereas the hydrogenation of the quinone ring is suppressed. On addition of even small amounts of N,N-dimethyl formamide (0.3%) to dioxane, 2-ethylanthraquinone is selectively hydrogenated. A higher selectivity of the process is apparently achieved by acceleration of the hydrogenation of the quinone group and by

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80093

Investigation of the Influence of Composition of Mixed S/020/60/131/06/37/071 Solvents on the Rate and Selectivity of the Process of B011/B005 Hydrogenation of 2-Ethylanthraquinone

adsorptive substitution of the hydroquinone molecules. The degree of selectivity depends on the nature and quantity of the polar solvent added. In their experiments, the authors used the following solvent mixtures: dioxane-N,N-dimethyl formamide and dioxane ethanol. The catalyst was produced by treating a Ni - Al alloy (50:50) with alkali. The reaction rate was determined by measuring the absorption rate of hydrogen. The quinones were determined after oxidation of the catalyzate by means of air with automatic photopolarographs of the type LP-55 (Methods, Ref. 4). Preliminary experiments showed that the reaction rate does not depend on the intensity of stirring. The reaction order in dimethyl formamide was equal to zero (Fig. 1). Fig. 1 shows the dependence of the hydrogenation rate of 2-ethylanthraquinone on its concentration in dimethyl formamide. Fig. 2 shows the dependence of the absorption rate of the first mole of hydrogen on the composition of the binary solvent. Table 1 shows that the reaction proceeds least selectively in dioxane. Already under smooth experimental conditions (20°, normal pressure), 2-ethyltetrahydroanthrahydroquinone begins to form. On hydrogenation in 90% of dioxane and 10% of ethanol (or equal volumes of dioxane and ethanol), no tetrahydroquinone was detected even after absorption of 0.95 mole of hydrogen. There are 2 figures, 1 table, and 4 references, 3 of which

Card 2/3

Investigation of the Influence of Composition of Mixed \$\(\frac{80093}{020/60/131/06/37/071} \)
Solvents on the Rate and Selectivity of the Process of \(\frac{80093}{80093} \)
Hydrogenation of 2-Ethylanthraquimone

are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: November 23, 1959, by A. A. Balandin, Academician

SUBMITTED: November 12, 1959

Card 3/3

DITSKIY, A. V.

"On the Problem of Analyzing the Kinematics of Spool-Changing Mechanisms of Automatic Looms." Sub 19 Jun 47, Moscow Textile Inst

Dissertations presented for degrees in science and engineering in Moscow in 1947

SO: Sum No. 457, 19 Apr 55

MALYSHEV, Aleksendr Petrovich, prof., doktor tekhn.nauk; VOROB'YEV,
Pavel Aleksendrovich, kend. tekhn.nauk; DOBROGURSKIY, S.O.,
prof., doktor tekhn.nauk, retsenzent; MITROPOL'SKIY, B.I.,
dots., kend.tekhn.nauk, retsenzent; DITSKIY, A.V., kend.tekhn.
nauk, red.; KL'KIND, V.D., tekhn.red.; CHRENOVA, Z.I., tekhn.
red.

[Mechanics and design calculations of looms] Mekhanika i konstruktivnye raschety tkatskikh stankov. Moskva, Gos.nauchnotekhn. isd-vo mashinostroit. lit-ry, 1960. 552 p.

(MIRA 14:5)

(Looms)

U I-SIN' [Wu I-hsin]; DITSKIY, A.V.

Investigating the friction clutch in the payoff and tension of the warp in the Sulzer loom. Izv.vys.ucheb.zav.; tekh.tekst.prom. no.3: 132-139 '63. (MIRA 16:9)

1. Meskovskiy tekstil'nyy institut.
(Looms) (Clutches (Machinery))

DITSKIY, A.V.

Determining the law of motion of the driven disk of the friction clutch of the warp release and tension mechanism of the Sultzer loom. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.1:151-160 *64. (MIRA 17:5)

1. Moskovskiy tekstil'nyy institut.

DITSKIY, A.V.

Performance of the friction clutch of the warp release and tension mechanism on the Zultzer loom. 1zv. vys. ucheb. zav.; tekh. teks. prom. no.3:145-151 '64. (MIRA 17:10)

1. Moskovskiy tekstil'nyy institut.

DITSKTY, G.F., kapitan 1-go ranga

Skillfully instruct young offic rs in disciplinary practice.

Mor. sbor. 47 no.4:42-46 Ap 164. (MIRA 18:7)

DITSMAN, A. P.

"Concerning the Congruence of the System of Elements of a Group Following a Double Model," Dok An Vol. 26, No. 4. 1940.

Moscow Order Lenin State U. In. M. V. Lomonosove.

DITSMAN, A. P.

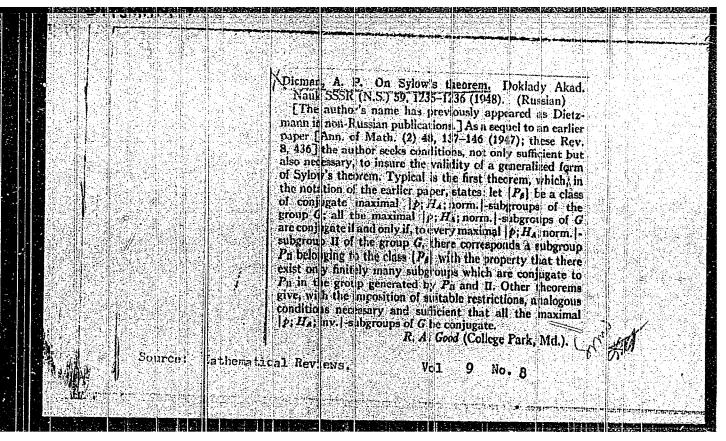
"On the Criteria of Non-Simplicity of Groups, <u>Dok An</u>. Vol. 44, No, 3, 1944

Moscow Order Lenin State U. im. M. V. Lomonosov.

DITSMAN, A. P.

"On the Multigroups of Complete Conjugate Sets of Elements in a Group." Dok AN. Vol. 49, No 5, 1945.

Moscow Order Lening State U. im. M. V. Lomonosov.



BUKHSHTAB, A.A., prof.; DITSMAN, A.P., dots.; NECHAYEV, V.I., dots.; KRIKS, I.G., tekhn. red.

[Programs of pedagogical institutes; advanced algebra] Programmy pedagogicheskikh institutov; vysshaia algebra. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1957. 6 p. (MIRA 11:9)

1. Ibassia (1917- R.S.F.S.R.) Glavnoye upravleniye vysshikh i srednikh pedagogicheskikh uchebnykh zavedeniy.

(Algebra-Study and teaching)

DITSMAN, A.P.

About p-subgroups of groups and theorems analogical to Sylew's theorems. Uch. zap MGPI 108:99-114 '57. (MIRA 11:12) (Groups, Theory of)

BEREZANSKAYA, Ye.S.; CHIREVICH, G.B.; DITSMAN, A.P. (Monkva); BUDANTSEV, P.A. (Orenburg); KUKOLEV, V.G. (Perm'); LYAPIN, S.Ye. (Leningrad); PRINTSEV, N.A. (Kursk)

Discussion of the new mathematics curricula. Mat. v shkole no.2:5-20 Mr-Ap 159. (MIRA 12:6) (Mathematics-Study and teaching)

DITSMAN, A.P.

Some criteria of the nonsingularity of groups. Uch. zap. MGPI no.138:89-103 '62. (MIRA 16:9) (Groups, Theory of)

Problem of W.Burnside for periodic groups. Mat. v shkole no.2:4-11
Mr-Ap *63.

(Groups, Theory of)

SOV/137-58-9-19672

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 211 (USSR)

AUTHORS: Borovskiy, I.B., Diteman, S.A., Baturev, V.A.

TITLE: On the Problem of the Role of Small Amounts of Substitution

Admixtures in Alloys [K voprosu o roli malykh primesey

zameshcheniya v splavakh (II)

PERIODICAL: V sb.: Issled. po zharoprochn. splavam. Vol 2. Moscow, AN

SSSR, 1957, pp 246-250

ABSTRACT: The effect of admixtures on the electron energy spectrum of Cr (of various degrees of purity), Mo, and Cr in Cr-Mo alloys

was investigated. X-ray spectra of iodide Cr (99.97%), electrolytic Cr (99.80-99.85%), hydride Cr (99.5%), and Mo (99.1%) were studied. Absorption and emission spectra of Cr were obtained on a spectrograph according to Johann in the second order of reflection from a quartz crystal bent along a radius of 500 mm, using the reflection from the (1010) face. It is established that with a decrease in the contents of additives in Cr, the lines $K\beta_1$ and $K\beta_5$ are displaced in the short-wave sense

and the index of asymmetry of the line of Ka is sharply modi-

Card 1/2 fied, but the absorption K-edge does not vary. With a

SOV/137-58-9-19672

On the Problem of the Role of Small Amounts of Substitution (cont.)

variation in the content of Mo in alloys from 0.53 to 14 atom % the variation in the position of the K β_l and K β_5 lines begins only with an Mo content of 12 atom %. The L_{111} -edge of Mo differs from the one described in literature. The conclusions are that, 1) small amounts of admixtures affect the electronic spectrum of Cr, 2) upon a change-over from iodide to hydride Cr, the boundary of the Fermi plane and the 3p band are displaced in the direction of lower energies, 3) a similar behavior of the Fermi boundary and the inner levels takes place in Cr-Mo alloys, but with an increase in the Mo content the relative variation of the electron spectrum is weaker than in the presence of small amounts of admixtures. For the preceding report see RZhMet, 1958, Nr 7, abstract 15571.

I.D.

1. Chromium -- Spectrographic analysis 2. Chromium alloys -- Spectrographic analysis

Card 2/2

BATYREV, V. A., BOROVSKIY, I. B., and DITSMAN, S. A. (INET AN SSSR)

X-ray Spectral Investigation of Molybdenum L Spectra in Some Alloys and Compounds"

Materials of the 2nd All-Union Conference on X-ray Spectroscopy; Moscow, January 31 February 4, 1957 (Materialy II Vsesoyuznogo soveshchaniya po rentgenovskoy spektroskopii; Moskva, 31 yanvarya - 4 fevralya 1957 g.)

Izvestiya Akademii nauk SSSR, Seriya fizicheskaya 1957, Vol 2, Nr 10, pp 1341 -

. DIESPAR SA

AUTHOR:

Borovskiy, I.B., Gurov, K.P., Ditsman, S.A.,

48-10-111/20

Batyrev, V.A., Lobanova, N.D.

TITLE:

X-Ray Spectral Investigations of Solid Solutions (Rentgeno-

spektral nyye issiledovaniya tverdykh rastvorov)

PERIODICAL:

Izvestiya AN SSSR Seriya Fizicheskaya, 1957, Vol. 21, Nr 10,

pp. 1401-1411 (USSR)

ABSTRACT:

On the basis of experimental investigations and the theoretical analysis of the problem of diluted solid solutions the authors draw the following conclusions: 1.) In diluted solid solutions near the admixture atoms with a negative excess charge "atomic blocks" are formed with an effective radius of 10-7 cm (if the atoms of the basis are atoms of the elements of transition groups). Within the boundaries of these blocks an additional play of forces develops. The potential of these forces has the character of a shortacting (cut off) potential. 2.) The influence exercised by these "blocks" in an energetical electron spectrum manifests itself most in-so-far as there is no interaction between the admixture atoms. 3.) The additional binding which develops and which is of polar character, is conserved within the limits of a large interval of concentration modification for solid solutions of the

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APPROVED FOR RELEASE: 06/12/2000 CIA

CIA-RDP86-00513R000410430001-8"

X-Ray Spectral Investigations of Solid Solutions

48-10-71/20

Cr-Mo-system (although now there are no blocks and binding is weaker). On the Cr-side this interval of "constant additional binding" is conserved within range of 2 - 30% at molybdenum. On the molybdenum side - 3 : 20% at Or. 4.) If No or Cr are admixture atoms, each of them has a negative excess charge in relation to the basic atoms (Cr and Mo respectively). 6.) In the interval of Or-concentrations of 38 - 70% at in its solid solutions with No, Cr has a positive and No has a negative excess charge (compared to their charge in pure metals). There are 6 figures, 4 tables, and 12 references, 7 of which are Slavic.

ASSOCIATION: Laboratory for Physical Methods of Investigation at the Institute for Metallurgy imeni A.A.Baykov AS USSR (Laboratoriya fizichaskikh metodov issledovaniya instituta metallurgii im. A.A.Baykova Akademii nauk SSSR)

AVAILABLE:

Library of Congress

Card 2/2

24(7)

AUTHORS:

Borovskiy, I. B., Ditsman, S. A.

SOV/20-124-5-22/62

TITLE:

Local X-ray Spectroscopy (Lokal naya rentgenovskaya spek ro-

skopiya)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 1042-1044

(USSR)

ABSTRACT:

With this method of investigating the chemical composition of a substance the characteristic X-ray radiation is excited by means of an electron probe of 2-5 μ diameter. The local sensitivity of this method amounts to $10^{-13}\text{--}10^{-15}$ g and the

temperature of the object under investigation is less than 40°. The present paper shows new possibilities for the investigation of the energy spectrum of the electrons of condensed systems by means of microfocus X-ray spectroscopy, where the fine structure of the emission lines is investigated. The basic scheme of the microfocus spectrograph is shown in form of a schematical drawing. In this spectrograph the Kapitsa-Ioganmethod is used for focusing radiation. The microsource of X-ray radiation, which has a diameter of 5 μ_{ν} is on a Rowland circle. The low efficiency necessary for the microfocus X-ray

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tube (some watts) simplifies the problems of stabilization

Local X-ray Spectroscopy

SOV/20-124-5-22/62

and recording the intensity of X-ray radiation considerably. For every fixed position of the microfocus radiation source with respect to the curved crystal a strictly monochromatic bundle of rays is reflected. In the second diagram the widths and shapes of the lines of the X-ray spectrum, which were determined by means of a microfocus spectrograph and by means of the usual apparatus with conditions otherwise being equal, were compared with one another. This then shows full agreement of these parameters. Cther figures by way of examples show the lines $K\alpha_1\alpha_2$ and $K\beta_1$ of iron in the 0-phase of the alloys Fe-Zn (\sim 6 % Fe), which were determined in the contact-diffusion layer of the original metals (annealing for 4 hours at 290°). A comparison of the parameters of the lines in the θ -phase and in the original Fe shows a decrease of the asymmetry index K to 1.3. The use of a microfocus X-ray spectrograph makes it possible to carry out a renewed methodical investigation of the fine structure of X-ray emission

spectra of the phase diagrams of binary and complicated metallic systems by using the diffusion layer at the places

Card 2/3

Local X-ray Spectroscopy

SOV/20-124-5-22/62

of contact between two metals, a metal and an alloy, etc. There are 3 figures and 3 Soviet references.

ASSOCIATION:

Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy

of Sciences, USSR)

PRESENTED:

November 3, 1958, by S. A. Vekshinskiy, Academician

SUBMITTED:

November 2, 1958

Card 3/3

DITSMAN, S.A., BATYREV, V.A.

Effect of absorption in the emitter on the form of X-ray spectrum lines. Trudy Inst. met. no.6:70-72 '60.

(MIRA 13:8)

(Absorption spectra) (Spectrum, X-ray)

Methods of microfocus X-ray spectroscopy. Trudy Inst. met.
no.6:80-96 '60. (MIRA 13:8)

(X-ray spectroscopy).

24.3430 1227, 1395, 9901

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AUTHORS:

Borevskiy, I. B., Ditsman, S. A., Bogdanov, V. G.

TITLE:

Microfocus X-ray spectrograph

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25,

no. 8, 1961, 919-922

TEXT: The present paper was the subject of a lecture delivered at the 5th Conference on X-ray Spectroscopy at Kharkov, January 30 to February 4, 1961. The authors describe the construction of a new microfocus X-ray spectrograph for studying the fine structure of X-ray emission spectra. In this spectrograph a method described by Kapitsa and Iogann is used for focusing the radiation with a bent crystal. The radius of curvature of the crystal is 500 mm and the instrument permits operation in a range of Bragg angles of 25-60°. When using the (1340), (1010) and (1011) faces of quartz as reflecting surfaces, the design of the instrument makes it possible to record the radiation in a range of from 1 to 7 Å. When studying the shape of the emission lines a fine adjustment of the angle of reflection from the crystal in a range of from 0.5 to 1° is possible Card 1/4

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Microfocus X-ray spectrograph

with the change of the angle of reflection in this range varying from 5-6". With an angular shift of the crystal through this angle the wavelength of the reflected radiation changes by 10^{-2} X-units. The mechanical part of the spectrograph was developed according to the principle of a spectrograph designed by P. Ohlin (Dissertation, Uppsala, 1941) and G. Brogren (Nova acta Regiae soc. scient. Uppsal., IV, 14, no.4, 1 (1949)). The use of a linear shift of the crystal permitted simplification of the instrument. Fig. 1 shows the design of the instrument. The point source of radiation is arranged on the Rowland circle of the crystal. If the crystal is in position K_1 , then the reflected ray incides upon the slit of the recorder. In this position the center of the Rowland circle lies at the point O1. When shifting the crystal into position K_2 it is necessary, in order to maintain the position of the focus F, to shift the Rowland circle such that its center lies at the point 02, and the source in the position C2. The construction of the mechanical part of the instrument warranting proper focusing is discussed. As an example, Fig. 3 shows shapes of X-ray lines taken with the instrument described here. Fig. 4 shows two schemes of two-channel instruments. In scheme 4g the crystal is shifted along a circle, in the scheme shown in

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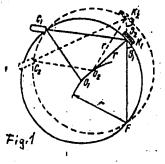
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Fig. 45 along a straight line. In the last scheme it was possible to reduce the angle between the channels, to use smaller slits, and to simplify the entire design. There are 4 figures and 9 references: 4 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences USSR)

Fig. 1: Scheme of the microfocus spectrograph.



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24.3430

AUTHOR:

Ditsman, S. A.

TITLE:

Study of the region of a microfocus source in an X-ray

nickel microanalyzer

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,

v. 25, no. 8, 1961, 923-928

TEXT: The present paper was the subject of a lecture delivered at the 5th Conference on X-ray Spectroscopy at Khar'kov, from January 30 to February 4. 1961. In a previous paper the author studied the reflection of X-rays of a microfocus source from bent crystals (Izv. AN SSSR, Ser. fiz., 24, 375 (1960)). In the present paper the author studies the region lying on the Rowland circle of a bent crystal in direct vicinity of the microsource. The study of this region is connected with the development of scanning X-ray spectrum microanalyzers. The main problem of devices of this type is the achievement of a topography of the X-rays reproducing the distribution of an element studied on the surface of the object. The geometrical theory of the region of the microsource is

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Study of the region of a ...

developed by means of the scheme shown in Fig. 1. The condition dx = tan V dy is found in which - if it is fulfilled - the reflection condition of radiation from the crystal does not change. It follows from the considerations that when the microsource is shifted in direction a (Fig. 1), always points exist in which the reflection condition is fulfilled. The dimension of the region of the microsource in this direction is not limited by the crystal dimensions. If the source is shifted in direction b, the dimension of the region of the microsource is limited. For the experimental study of a region of the microsource an apparatus was used which had been described by the author in a previous paper (Tr. In-ta metallurgii, no. 6, 89 (1960)). Fig. 4 shows the region of the microsource for various crystal surfaces. The author observed a dependence of the dimensions of the region of the microsource on the dimension of the active crystal surface. The width of the region supplying half of the maximum intensity of the radiation reflected from the crystal, is about 270µ in the first case (active surface of the crystal 15.15 mm), 130 μ in the second (active surface of the crystal 1.1 mm). This is in agreement with the estimates. Furthermore, it was found that the region of maximum intensity of the reflected radiation for a crystal

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